Angeles Marin Batana

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EDUCATION

Ball State University

May 2025

B.S Computer Science; B.S Spanish; Minor in Sociology

Muncie, IN

- GPA: 3.5/4.0
- Honors: Departmental Honors Computer Science; Dean's List
- Concentrations: Data Analytics and Machine Learning; Language and Culture Studies

WORK EXPERIENCE

Co-Founder | Software Engineer

Aug. 2024 – Present

Placenet

Indianapolis, IN

- Co-founded startup evolving from university capstone; led a 5-person team to design, launch, and pivot two MVPs within 4 months.
- Engineered backend systems (Node.js + PostgreSQL → migrated to Firebase) with secure authentication, CRUD modules, property filtering, and contractor management workflows.
- Built and tested 15+ production-ready frontend features (React Native + Axios), including property maps, document storage (AWS), and profile management.
- Directed product iterations with early testers; integrated user feedback into new features, improving usability and reliability.
- Represented Placenet at the Global Entrepreneurship Congress and TechChicago Capital Summit, securing 5– 10 partner/client leads and investor interest.
- Collaborated on Y Combinator application and strategic roadmap with co-founder/CEO.
- Tech Stack: React Native · Firebase · Node.js · Express · PostgreSQL · Axios · Jest · GitHub · Expo · AWS

Artificial Intelligence and Cybersecurity Research Assistant

Oct. 2024 - Present

Ball State University

Muncie, IN

- Collaborating on a peer-reviewed academic research paper focused on automating security requirements elicitation through Ai-Driven frameworks using LLM, machine learning, and advanced NLP techniques.
- Implementing and currently refining Retrieval-Augmented-Generation (RAG) pipelines in Python using the OpenAI API and ChromaDB to help mitigate challenges of traditional LLM approaches
- Assisted in developing an LLM-based framework that identifies critical system assets (like databases) from technical documentation, maps assets to threats (using sources like CVE), and automatically generating tailored security requirements and misuse cases.
- Conducted literature reviews on transformer-based NLP models (e.g., BERT, GPT-4) and their role in threat detection, requirement formulation, and compliance mapping.
- Designed visualizations, tables, and structured use-case outputs to effectively communicate asset-threat mappings and security requirements to cross-functional teams.
- Designed visualizations, tables to effectively communicate with faculty and fellow undergraduate researchers in weekly research meetings to iterate on methodology, data quality, and model performance
- **Tech Stack**: Python · OpenAI API (GPT-4) · ChromaDB · Transformer Models (BERT, RAG) · CVE Datasets · Pandas · LangChain · Markdown/LaTeX

Big Data Analytics and Machine Learning Researcher

May. 2024 - Jul. 2024

North Dakota State University

Fargo, ND; Santiago, Chile

- Selected for an NSF-funded REU program to research scalable machine learning solutions using swarm intelligence algorithms and parallel computing
- Implemented and benchmarked two Spark-enabled Bat Algorithm (BA) variants to optimize classification tasks by distributing either input data or swarm particles across cores.

- Evaluated performance across 7 core configurations (2–64 cores) and 10 dataset sizes, using speedup and scaleup metrics to analyze computational efficiency.
- Applied Apache Spark for high-performance distributed processing, showcasing diminishing returns and optimization bottlenecks in large-core environments.
- Presented research findings at Universidad de Chile Escuela de Ingeniería y Ciencias, highlighting scalability strategies for real-world machine learning applications.
- Gained advanced experience in parallel computing, metaheuristic optimization, Apache Spark, and large-scale data processing.
- **Tech Stack:** Python · Apache Spark · Jupyter Notebooks · Git · RDDs · Matplotlib · NumPy · Pandas

UX/ UI Researcher | Junior Project Manager

Sept. 2023 - May 2025

The Digital Corps | Ball State University

Muncie, IN

- Led and collaborated with cross-functional teams and university-wide clients to deliver **user-centered UX/UI solutions** supporting digital transformation initiatives.
- Managed and executed 10+ projects with **100% on-time delivery**, leveraging clear communication, strategic planning, and iterative feedback.
- Conducted **user interviews**, created **wireframes**, mapped **user journeys**, and designed **complex user flows** to enhance usability and meet client needs.
- Presented design proposals and creative solutions to stakeholders, demonstrating strong communication skills and an ability to align design decisions with project goals.
- Technologies: Figma · Miro · HTML/CSS · Microsoft Office Suite · Slack · Whimsical

IT Operations Intern

May 2023 - Aug 2023

Magna International

Muncie, IN

- Troubleshot and resolved hardware and software issues for 100+ end-users, ensuring 98% customer satisfaction and minimizing downtime across the company.
- Configured and maintained computers running Windows 10, contributing to efficient IT operations and ensuring systems were fully functional.
- Enhanced data analytics capabilities by leveraging QuickBase and PowerBI to analyze and visualize companywide data, leading to 15% improvement in reporting efficiency.
- Provided technical support by troubleshooting, hardware, and software, and configuring computers ensuring minimal downtime.

Pharmaceutical Chemistry Research Intern

Jun 2021 - Aug 2021

Eli Lilly & Company

Indianapolis, IN

- Conducted research in the **Synthetic Molecule Design and Development (SMDD)** department, focusing on enhancing the **oral delivery of polypeptides** through novel dosage forms.
- Supported formulation design by analyzing the **bioavailability and effectiveness** of various drug delivery strategies for synthetic molecules.
- Performed literature reviews on oral peptide delivery, synthesized key findings, and contributed to internal knowledge for ongoing development.
- Collaborated with researchers, employees, and fellow interns to gain cross-functional insight into pharmaceutical development processes.
- Delivered a final presentation summarizing research outcomes, demonstrating strong scientific communication and data interpretation skills.

Clinical Research Intern

Jul 2020 - Aug 2020

Indiana University Purdue University Indianapolis

Virtual

- Conducted research on anti-VEGF therapies and its implications on diabetic retinopathy treatment with an emphasis on patient care and efficacy with the Indiana University School of Medicine
- Contributed to data analysis with a focus on clinical research methodologies through active collaboration with peers at the national level.
- Presented findings in an end of program presentation, demonstrating my expertise in internal medicine,

TECHNOLOGIES & CERTIFICATIONS

Technologies:

- o **Programming Languages**: Python · Java · JavaScript · TypeScript · Swift · Ruby · C · HTML · CSS
- O AI/ Data Science & ML Tools: OpenAI API · LangChain · NotebookLM · ChromaDB · TensorFlow · PyTorch · Scikit-learn · Apache Spark · Pandas · NumPy · Jupyter · R · Power BI · Tableau
- o Database & Backend: PostgreSQL · MySQL · Firebase · Amazon s3 · QuickBase
- Web & App Development: React Native · Expo · Axios · Docker · GitHub · Insomnia Rest API Client · IntelliJ IDEA · VS Code · Loveable · Express.js · Jest · Git

• Certifications:

- O DataCamp: Understanding Machine Learning, Understanding Artificial Intelligence, Responsible AI Practices, Large Language Models Concepts, Introduction to R, Introduction to ChatGPT, AI Ethics, Generative AI Concepts, Explainable Artificial Intelligence (XAI) Concepts, AI Security and Risk Management
- CITI Program: Physical Science Responsible Conduct of Research, Biomedical Responsible Conduct of Research, Social and Behavioral Responsible Conduct of Research, IUEHS Biosafety Training, NIH Recombinant DNA Guidelines, Human Gene Transfer
- o Indiana University: HIPPA Privacy & Security, An introduction to Compliance at IU, HIPPA & Mobile Devices,